## In the Claims

- 1(Original). A method of performing a search of a numerical DOM, comprising the steps of:
  - (a) receiving a query;
  - (b) when the query is a fully qualified query, transforming a target string to form a fully qualified hashing code;
  - (c) performing an associative lookup in a map index using the fully qualified hashing code;
  - (d) returning a map offset;
  - (e) returning a data couplet.
- 2(Original). The method of claim 1, further including the steps of:
  - (f) converting an identified couplet of the numerical DOM into an XML string.
- 3(Original). The method of claim 2, further including the steps of:
  - (g) converting the data couplet into a data XML string.
- 4(Original). The method of claim 1, wherein step (a) further includes the steps of:
  - (a1) when the query is a partially qualified query, transforming a target to form a partially qualified hashing code;
  - (a2) performing an associative lookup in a dictionary index using the partially qualified hashing code;
  - (a3) returning a dictionary offset;
  - (a4) locating the complete string in the dictionary, using the dictionary offset;
  - (a5) locating a pointer in a map index using the complete string;
  - (a6) locating the complete reference in the numerical DOM using the pointer.
- 5(Original). The method of claim 1, wherein step (a) further includes the steps of:
  - (a1) when the query includes a wildcard target, scanning a dictionary for the wildcard target;

- (a2) returning a complete string from the dictionary that contains the wildcard target;
- (a3) locating a pointer in a map index using the complete string;
- (a4) locating a couplet in the numerical DOM using the pointer.
- 6(Original). A method of performing a search of a numerical DOM comprising the steps of:
  - (a) receiving a query;
  - (b) determining a target type of the query;
  - (c) when the target type is an incomplete data string, performing a sliding window search of a dictionary;
  - (d) returning a complete data string; and
  - (e) returning an incomplete data couplet.
- 7(Original). The method of claim 6, wherein step (d) further includes the step of returning a plurality of dictionary offsets.
- 8(Original). The method of claim 6, further including the steps of :
  - (f) when the target type is an incomplete tag and a complete data string, transforming the incomplete tag to form an incomplete target hashing code;
  - (g) performing an associative lookup in a map index using the incomplete tag hashing code;
  - (h) returning at least one map offset.
- 9(Original). The method of claim 8, further including the steps of:
  - transforming the complete data string to form a complete dta string hashing code;
  - (j) performing an associative lookup in the map index;

- (k) returning a data string map offset;
- (I) comparing at least one map offset and the data string map offset,
- 10(Original). The method of claim 1, wherein step (b) further includes the step of:
  - (b1) performing a linear feedback shift register operation on the target string to from the fully qualified hashing code.
- 11(Original). The method of claim 4, wherein step (a2) further includes the step of:
  - (i) performing a modulo two polynomial division on the target to form the partially qualified hashing code.
- 12(Original). A method of translating a structured data document, comprising the steps of:
  - (a) creating a numerical DOM of the structured data document;
  - (b) translating a first format dictionary of the numerical DOM into a second format dictionary; and
  - (c) adding a second set of dictionary pointers, the second set of dictionary pointers pointing to offsets in the second format dictionary.
- 13(Original). The method claim 12, further including the steps of:
  - (d) converting a plurality of dictionary offset pointers to a plurality of dictionary index pointers.
- 14(Original). A method of creating an alias in a numerical DOM, comprising the steps of:
  - (a) receiving an alias request;
  - (b) finding a dictionary offset for the original string in a dictionary;

and

- (c) converting the original string to the alias at the dictionary offset.
- 15(Original). The method of claim 14, further including the steps of:
  - (d) creating an alias index.
- 16(Original). The method of claim 14, wherein step (b) further includes the steps of:
  - (b1) transforming the original string to form a string hashing code;
  - (b2) performing an associative lookup in the dictionary to find the dictionary offset.
- 17(Original). The method of claim 15, wherein step (d) includes creating an array that matches the dictionary offset to the original string.
- 18(Original). A method of performing a search of a numerical DOM, comprising the steps of:
  - (a) receiving a query;
  - (b) transforming the query to form a fully qualified hashing code;
  - (c) performing an associative lookup in map index using the fully qualified hashing code; and
  - (d) returning a map offset.
- 19(Original). The method of claim 18, further including the steps of:
  - (e) converting an identified couplet of the numerical DOM into an XML string.
- 20(Original). The method of claim 18, further including the steps of:
  - (e) determining if the target is a complete data string;

- (f) when the target is a complete data string, transforming the complete data string to form a complete hashing code;
- (g) performing an associative lookup in a dictionary index using the complete data hashing code;
- (h) returning a dictionary offset;
- (i) scanning the numerical DOM for the dictionary offset;
- (j) returning a data couplet.
- 21(Original). The method of claim 20, further including the steps of:
  - (k) converting the data couplet into a data XML string.
- 22(Original). The method of claim 18, further including the steps of:
  - (e) determining if the target is a wildcard data string;
  - (f) when the target is the wildcard data string, performing a sliding window search of a dictionary;
  - (g) returning a dictionary offset of a match;
  - (h) scanning the numerical DOM for the dictionary offset;
  - (i) returning an incomplete data couplet.